

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named
Inventor : Ge Yi et al.

Appln. No. : Filed Herewith
Filed : Filed Herewith
For : MAGNETORESISTIVE SENSOR
Docket No.: S01.12-0988/STL 11281.00

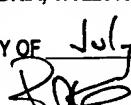
Group Art Unit:
Examiner:

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I HEREBY CERTIFY THAT THIS PAPER IS BEING
SENT BY U.S. MAIL, FIRST CLASS, TO THE
COMMISSIONER FOR PATENTS, P.O. BOX 1450,
ALEXANDRIA, VA 22313-1450, THIS

27th DAY OF Jul, 2003.


PATENT ATTORNEY

The patents or publications listed on the enclosed PTO Form-1449 are submitted pursuant to 37 C.F.R. § 1.97. Copies of the patents or publications cited are enclosed.

The information disclosure statement is being filed within the time periods set forth in 37 C.F.R. § 1.97(b). Accordingly, no statement or fee is required.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123. A duplicate copy of this communication is enclosed.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: 

Brian D. Kaul, Reg. No. 41,885
Suite 1600 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222
Fax: (612) 334-3312

BDK/djb

FORM PTO-1449		Atty. Docket No.: S01.12-0988/STL 11281.00	Appl. No.: Filed Herewith
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT		First Named Inventor:	
		Ge Yi et al.	
		Filing Date	Group Art:
Filed Herewith			

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
AA	4,764,478	8/16/88	Hiruta	437	29	
AB	5,192,618	3/9/93	Frankel et al.	428	457	
AC	5,406,434	4/11/95	Amin et al.	360	126	
AD	5,936,402	8/10/99	Schep et al.	324	252	
AE	6,054,023	4/25/00	Chang et al.	204	192.2	
AF	6,383,574	5/7/02	Han et al.	427	526	
AG	6,411,478	6/25/02	Mao et al.	360	324.2	
AH	6,501,143	12/31/02	Sato et al.	257	421	
AI	6,515,341	2/4/03	Engel et al.	257	421	
AJ	US2002/009 4374	7/18/02	Han et al.	427	128	
AK						

FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
AL	WO 02/095434 A1	11/28/02	WO			X (abstract only)
AM						
AN						

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449	Atty. Docket No.: S01.12-0988/STL 11281.00	Appl. No.: Filed Herewith
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	First Named Inventor:	
	Ge Yi et al.	
	Filing Date	Group Art:
Filed Herewith		

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AO	H.D. Chopra and S.Z. Hua, "Ballistic Magnetoresistance over 3000% in Ni nanicontacts at room temperature," Phys. Rev. B66 (2002) 020403R
	G. Prinz, "Magnetoelectronics," Science 282 (1998) 1660
	S.H. Chung et al., "Universal Scaling of Ballistic Magnetoresistance in Magnetic nanocontacts," Phys. Rev. Lett. 89 (2002) 287203
	P. Bruno, "Geometrically Constrained Magnetic Wall," Phys. Rev. Lett. 83 (1999) 2425
	N. Garcia et al., "Magnetoresistance in excess of 200% in Ballistic Ni Nanocontacts at Room Temperature and 100 Oe," Phys. Rev. Lett. 82 (1999) 2923
	G. Tatara et al., "Domain Wall Scattering Explains 300% Ballistic Magnetoconductance of Nanocontacts," Phys. Rev. Lett. 83 (1999) 2030
	M. Munoz et al., "Ballistic magnetoresistance in a nanocontact between a Ni cluster and a magnetic thin film," Appl. Phys. Lett. 79 (2001) 2946
	Kaminsky et al., "Patterning ferromagnetism in Ni ₈₀ Fe ₂₀ films using Ga ⁺ ion irradiation," Appl. Phys. Lett. 78 (2001) 1589
	C. Chappert et al., "Planar Patterned Magnetic media obtained by ion irradiation," Science, 280 (1998) 1919
	Fadei Komarov ed., "Ion beam Modification of Metals," OPA (Amsterdam) 1992, p. 130
	Phil Schewe et al., "Ballistic Magnetoresistance," Physics News Update (2002) 1 page
	"Ballistic Magnetoresistance," Physics News Graphics, (2002), 3 pages
AP	R. Colin Johnson, "Nanocontacts could make hard drives go 'ballistic,'" The Work Circuit, 4 pages (May 27, 2003)
AQ	Roger D. Pease et al., "The Future of Memory and Storage Technology," ELEC 694 (2002)

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.